

Remarks

Each rejection raised by the Examiner is addressed separately below. In view of the claim amendments noted above and the remarks below, Applicants respectfully request reconsideration of the merits of this patent application.

Claims 4, 17, 19 and 21-24 are currently being examined. Claims 4 and 17 have been amended to recite that the period of time is 8 hours to up to about 21 hours. Claim 17 has also been amended to recite that the end of fermentation is indicated by a pre-determined decline in specific gravity. Support for the amendments can be found in the specification as filed (see page 10, line 26 to page 11, lines 1-3 and page 1, lines 19-23 to page 2, lines 1-2, respectively).

New dependent claims 25 and 26 recite the pH of the liquid adjunct as greater than 6.0. New claims 25 and 26 provide advantages as set forth in the application as filed, (see page 11, lines 9-14) "The pH of the yeast/sugar solution may be adjusted so that it is at least 3.0, preferably greater than 6.0, and most preferably about 7.0. Aeration in a sugar solution having a pH of about 6.0 is correlated with reduced yeast cell death during aeration and enhanced fermentation rates in subsequent fermentation." Reducing yeast cell death during aeration and enhancing fermentation rates improve consistency and decrease the time required for fermentation.

Favorable reconsideration and allowance of this application is respectfully requested.

§112 REJECTIONS-INDEFINITENESS

Claims 17, 19 and 21-24 have been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Specifically, the Examiner contends that claim 17, step (e) includes the phrase "monitoring the wort for end of fermentation" which is indefinite. Without agreeing to the Examiner's characterization of the claim, and solely to move this case to allowance, Applicants have amended claim 17 to recite "wherein the end of fermentation is indicated by a pre-determined decline in specific gravity." Accordingly, Applicants submit this rejection has been overcome and request that the rejection be withdrawn.

REJECTIONS UNDER 35 USC §103

The Examiner has maintained the rejection of claims 4, 17, 19 and 21-24 as being obvious over GB 2197341 to Quain (Quain) in view of the Handbook of Brewing and in further view of

applicants' own admission on pages 1-4 of the application as filed.

Regarding claims 4 and 17, the Examiner states that Quain teaches a method of brewing beer by suspending yeast in a wort-free aqueous solution. Applicants submit that this rejection has been overcome by the current amendments to the claims. Specifically, claims 4 and 17, step (b), have been amended to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast, wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours." This is clearly not taught by either Quain or the Handbook of Brewing, nor would one of skill in the art be motivated to modify Quain or the Handbook of Brewing in this manner.

Aerating the yeast suspension for a period of time between 8 hours and 21 hours provides advantages over the prior art. As set forth in the application as filed, (see page 10, line 26 to page 11, lines 1-3), "the yeast aerated in a sugar solution for from about 8 hours up to about 21 hours exhibit optimal yeast performance in subsequent fermentations." Improving yeast performance in subsequent fermentations improves consistency and decreases the time required for fermentation.

Nothing in Quain or the Handbook of Brewing teaches or suggests one of skill in the art to "aerate the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast, wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours." Therefore, Applicants submit that neither Quain nor the Handbook of Brewing can be used to render the subject matter of the pending claims obvious.

The Examiner concedes that Quain does not teach or suggest using the specific gravity for aeration and pitching recited in claims 4 and 17. However, the Examiner alleges that it would have been obvious to use the method of Quain with the specific gravity values taught for pitching in the Handbook of Brewing. Without agreeing to the Examiner's characterization of the claim, and solely to move this case to allowance, Applicants have amended claims 4 and 17 to recite " aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast, wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours." Applicants submit that neither Quain nor the Handbook of Brewing can be used to render the subject matter of the pending claims obvious because neither Quain nor the Handbook of Brewing provide any teaching, suggestion or motivation

to modify the combined teachings to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours."

The Examiner further concedes that Quain is silent regarding the addition of cereal sugars to the yeast suspension as cited in claims 4 and 17. Again, the Examiner alleges that the Handbook of Brewing teaches the carbohydrate requirement of sugars like sucrose, maltose and maltotriose. Therefore, the Examiner alleges that it would have been obvious to add maltose and maltotriose to the aqueous suspension for aerating yeast. Without agreeing to the Examiner's characterization of the claim, and solely to move this case to allowance, Applicants have amended claims 4 and 17 to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast, wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours." Applicants submit that neither Quain nor the Handbook of Brewing can be used to render the subject matter of the pending claims obvious because neither Quain nor the Handbook of Brewing provide any teaching, suggestion or motivation to modify the combined teachings to recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast, wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours." Therefore, Applicants respectfully submit that claims 4 and 17 are not obvious over Quain, even in view of the Handbook of Brewing.

Regarding claims 21-24, the Examiner cites Quain as teaching suspending yeast in an aqueous medium to oxygenate. The Examiner concedes that Quain is silent regarding the use of maltose and maltotriose. The Examiner goes on to state that the Handbook of Brewing teaches the carbohydrate requirement of sugars like sucrose, maltose and maltotriose. Therefore, the Examiner alleges that it would have been obvious to add maltose and maltotriose to the aqueous suspension for aerating yeast. However, claims 21 and 22 depend from claim 17, and claims 23 and 24 depend from claim 4, both of which, as discussed above, clearly recite "aerating the yeast suspension for a period of time with a gas comprising oxygen to allow oxygen uptake by the yeast, wherein the gas is delivered above a maximum oxygen uptake rate of the yeast and wherein the period of time is 8 hours up to about 21 hours." Quain does not teach or suggest this. Therefore, Applicants

respectfully submit that claims 21-24 are not obvious in view of Quain, even in combination with the teachings of the Handbook of Brewing.

SUMMARY

Having addressed each issue raised by the Examiner, claims 4, 17 and 21-24 as amended and new claims 25 and 26 are believed to be in condition for allowance and a Notice of Allowance is respectfully requested. Should any issues remain outstanding, the Examiner is invited to contact the undersigned at the telephone number appearing below if such would advance the prosecution of this application.

No other fee is believed to be due in connection with this response. However, if any fee is due in this or any subsequent response, please charge the fee to the same Deposit Account No. 17-0055.

Respectfully submitted,

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